

through 62, and 74 through 79 — "Group II" of the claims as defined at page 2 of the Action.

(Applicant previously canceled claims 8, 9 and 13, claims 17 through 41, 63 through 65, and 70 through 72.)

Starting on the next page is a full presentation ("clean") of all the claims now in this case, namely:

- all claims amended hereby (claims 3 through 7, and claims 66 and 67);
- new claims hereby added (claims 80 through 96); and
- the unamended claims (claims 1, 2, 11, 12, 68, 69 and 73).

Regarding this claim-numbering format please see the "REMARKS" section, page 16.

Marked-up copies of the claims as amended in this document are provided below in the Appendix, following the signature page.

PLEASE NOTE: For the Examiner's convenience, and consistent with 37 CFR § 121(c), the new claims are inserted into the claim sequence at the points where proposed — namely, new 80 through 86 following claim 2; new 87 and 88 following claim 7; and 89 through 96 following 73.

Thus the claims are in desired sequence though not in numerical order.

[Claims 1 and 2 below are original unamended claims.]

1 1. A laser projector comprising:
2 laser apparatus for projecting a picture beam that
3 includes visible laser light of wavelength about six hundred
4 thirty-five (635) nanometers or longer; and
5 a reflective liquid-crystal light valve for modulating
6 the beam with a desired image.

1 2. The projector of claim 1, wherein:
2 light that appears red in the beam comprises substan-
3 tially only said laser light of wavelength about 635 nanome-
4 ters or longer.

1 80. (new) The projector of claim 2, further comprising:
2 means for also incorporating blue and green laser light
3 into the picture beam; and
4 separate, additional reflective liquid-crystal light
5 valves for modulating the blue and green light respectively.

1 81. (new) The projector of claim 80, wherein:
2 said light valve also receives blue and green laser
3 light for modulation, within the same light valve.

1 82. (new) The projector of claim 2, further comprising:
2 means for scanning the beam across a face of the light
3 valve during projection of each image, rather than flooding
4 the entire face substantially simultaneously.

1 83. (new) The projector of claim 82, further comprising:
2 means for also incorporating blue and green laser light
3 into the picture beam; and
4 separate, additional reflective liquid-crystal light
5 valves for modulating the blue and green light respectively.

1 84. (new) The projector of claim 2, wherein:
2 said light valve also receives blue and green laser
3 light for modulation, within the same light valve.

1 85. (new) The projector of claim 82, wherein:
2 the laser apparatus comprises no solid-state lasers,
3 but rather exclusively lasers of gas type.

1 86. (new) The projector of claim 2, wherein:
2 the laser apparatus comprises no solid-state lasers,
3 but rather exclusively lasers of gas type.

1 3. (amended) The projector of claim 86, wherein:
2 said apparatus projects a beam in which light that ap-
3 pears red is of wavelength between about 635 and 650 nano-
4 meters.

1 4. (amended) The projector of claim 1, wherein:
2 said apparatus projects a beam in which light that ap-
3 pears red is of wavelength substantially 647 nanometers.

1 5. (amended) The projector of claim 4, wherein:
2 the image is a moving picture.

1 6. (amended) The projector of claim 1, further
2 comprising:
3 further laser apparatus for projecting one or more
4 beams that include green and blue laser light; and
5 wherein the laser light of wavelength about 635 nanome-
6 ters or longer mixes with the green and blue laser light to
7 provide substantially pure neutral colors including pure
8 white and pure black.

1 7. (amended) The projector of claim 6, wherein:
2 the further laser apparatus projects substantially cyan
3 native laser light with the blue or green light, or both.

1 87. (new) The projector of claim 6, further comprising:
2 means for also incorporating the blue and green laser
3 light into said picture beam; and
4 separate, additional reflective liquid-crystal light
5 valves for modulating the blue and green light respectively.

1 88. (new) The projector of claim 6, wherein:
2 said light valve also receives the blue and green laser
3 light for modulation, within the same light valve.

[Claims 8 and 9 have been canceled.]

Claims 10 through 12 below are original unamended claims.]

1 10. The projector of claim 6, further comprising:
2 means for receiving high-bandwidth red, green and blue
3 computer-monitor signals from a computer;
4 wherein the projector serves as a high-color-fidelity
5 computer monitor.

1 11. The projector of claim 6, wherein:
2 the liquid-crystal light valve is not controlled by
3 light derived from traditional broadcast video signals.

1 12. The projector of claim 11, wherein the liquid-crystal
2 light valve is controlled by light or control signals ap-
3 plied to the valve by writing onto a control stage of the
4 valve:

5 a vector, bitmap or other computer file scanned
6 from an image or generated in a computer, or
7

8 amplitude-modulated laser-diode illumination swept
9 two-dimensionally across the control stage,
10 or

11
12 images from a small transmissive liquid-crystal
13 display modulator, in turn written by signals
14 not derived from traditional broadcast video
15 signals, or

16
17 other entire frames without interlace, or
18

19 motion-picture film color separations, or

20
21 a still image from a slide or overhead-projection
22 transparency, or a color separation made
23 therefrom, or

24
25 a live image optically coupled, without electronic
26 intermediary, to the control stage.

[Claim 13 has been canceled.]

Claims 14 through 16 below are original unamended claims.]

1 14. The projector of claim 6, wherein:
2 the first-mentioned laser apparatus and the further
3 laser apparatus, considered together, comprise one or more
4 lasers; and
5 every laser in the first-mentioned laser apparatus and
6 the further laser apparatus is exclusively a solid-state
7 laser.

1 15. The projector of claim 6, wherein:
2 the first-mentioned laser apparatus and the further
3 laser apparatus, considered together, comprise one or more
4 lasers; and
5 every laser in the first-mentioned laser apparatus and
6 the further laser apparatus is exclusively a gas laser.

1 16. The projector of claim 1, further comprising:
2 further laser apparatus for projecting one or more pic-
3 ture beams that include green and blue laser light; wherein:
4 the proportions of light power of the about 635-nan-
5 ometer or longer-wavelength laser light, the green laser
6 light and the blue laser light are roughly eight to six to
7 five (8:6:5) ..

[Claims 17 through 65 have been canceled.]

1 66. (amended) A laser projection system for forming an
2 image on an irregular projection medium having portions at
3 distinctly differing distances from the projector; said
4 system comprising:

5 laser apparatus for projecting a picture beam that
6 includes laser light;

7 a liquid-crystal light valve for impressing an image
8 onto the beam; and

9 means for projecting the beam from the light valve,
10 with ~~said impressed image onto such irregular projection~~
with said impressed image onto such irregular projection
medium as a show for an audience.

1 67. (amended) The system of claim 66, wherein:

2 the irregular projection medium comprises one or more

3 projection media selected from the group consisting of:

4

5 an interior of a dome, or other building having

6 internal surfaces that are not generally

7 normal to a projection direction,

8 an exterior of a dome, sculpture, monument, or

9 other structure having external surfaces that

10 are not generally normal to a projection

11 direction,

12 a waterfall,

13 a water fountain,

14 fog or a cloud,

15 ice,

16 a scrim in front of a curtain or screen,

17 a plurality of scrims in optical series,

18 one or more trees,

19 grass, vines or other foliage,

20 a hillside or other landscape, or other receding

21 surface, and

22 an array of people or other animals or other dis-

23 crete objects, or combinations thereof, at

24 diverse distances from the projecting means;

25 and

26

27 the projecting means display a protracted show on the

28 one or more projection media, for the audience.

[Claims 68 and 69 below are original unamended claims.]

1 68. The system of claim 67, further comprising:
2 such irregular projection medium.

1 69. The system of claim 66, further comprising:
2 such irregular projection medium.

[Claims 70 through 72 have been canceled.

Claim 73 is an original unamended claim.]

1 73. The system of claim 66, wherein:
2 the laser apparatus comprises one or more lasers; and
3 every laser in the laser apparatus is exclusively a
4 solid-state laser.

[Claims 74 through 79 have been canceled.

Claims 80 through 88 appear above in sequence.]

1 89. (new) The projector of claim 66:
2 wherein the laser apparatus projects red laser light in
3 the picture beam; and
4 the light valve impresses red components of an image
5 onto the red laser light; and
6 further comprising:
7
8 means for also incorporating blue and green laser
9 light into the picture beam, and
10
11 separate, additional liquid-crystal light valves for
12 respectively impressing blue and green components
13 of the image onto the blue and green light.

1 90. (new) The projector of claim 66, wherein:
2 said light valve receives laser light components of
3 three respective colors and impresses corresponding color
4 components of the image onto the three respective light com-
5 ponents, respectively, all within the same light valve.

1 91. (new) A laser projection system for forming an image
2 on an irregular projection medium having portions at dis-
3 tinctly differing distances from the projector; said system
4 comprising:

5 laser apparatus for projecting a picture beam that
6 includes laser light;

7 a liquid-crystal light valve for impressing an image
8 onto the beam; and

9 means for projecting the beam from the light valve,
10 with said impressed image, onto such irregular projection
11 medium to form a substantially sharp image on such medium at
12 such distinctly differing distances.

1 92. (new) The system of claim 91, wherein:
2 the irregular projection medium comprises one or more
3 projection media selected from the group consisting of:

4
5 an interior of a dome, or other building having
6 internal surfaces that are not generally
7 normal to a projection direction,
8 an exterior of a dome, sculpture, monument, or
9 other structure having external surfaces that
10 are not generally normal to a projection
11 direction,
12 a waterfall,
13 a water fountain,
14 fog or a cloud,
15 ice,
16 a scrim in front of a curtain or screen,
17 a plurality of scrims in optical series,
18 one or more trees,
19 grass, vines or other foliage,
20 a hillside or other landscape, or other receding
21 surface, and
22 an array of people or other animals or other dis-
23 crete objects, or combinations thereof, at
24 diverse distances from the projecting means;
25 and
26
27 the projection means form the substantially sharp image
28 on substantially each element of the selected one or more
29 media.

1 93. (new) A laser projector comprising:
2 laser apparatus for projecting a picture beam that
3 includes visible laser light of wavelength longer than 640
4 nanometers; and
5 a reflective liquid-crystal light valve for modulating
6 the beam with a desired image.

1 94. (new) The projector of claim 93, wherein:
2 said apparatus projects a beam of wavelength substan-
3 tially 647 nanometers.

1 95. (new) The projector of claim 93:
2 wherein the light valve impresses red components of an
3 image onto the laser light of wavelength longer than 640
4 nanometers; and
5 further comprising:
6
7 means for also incorporating blue and green laser
8 light into the picture beam, and
9
10 separate, additional liquid-crystal light valves for
11 respectively impressing blue and green components
12 of the image onto the blue and green light.